

CHAPTER ELEVEN

UH-1N CREW MEMBER SUPPLEMENTARY COURSES

UH-1N CREW MEMBER ACADEMIC SUPPORT PACKAGE

Course Objective: To provide the UH-1N crew member with additional ground training as required by MCO P3500.14.

Length: 35 classroom hours

Notes:

1. The Academic Support Package (ASP) is developed by MAWTS-1 and designed to be taught by a Enlisted WTI or other qualified (AGI, DACTI, NSI) instructor. The Academic Syllabus shall be integrated into the Combat Ready (14 hours of academic instruction), Combat Qualified (16 hours of academic instruction) and Fully Combat Qualified (3 hours of academic instruction) stages of training. All lectures delineated throughout the academic support package (ASP) should be conducted annually for all enlisted aircrew (35 hours of academic instruction).
2. All lectures listed below in the academic syllabus are available on either the secret (S) or unclassified (U) versions of the MAWTS-1 ASP.

Academic Syllabus:

1. The following syllabus supports the 200-level (Combat Ready) phase of training:
 - a. Prior to the Initiation of the Combat Ready phase of training the following lecture shall be completed:
 1. EAD Tactical Aircrew Considerations **EAD ASP**
and Responsibilities
 - b. Prior to flying any sortie that requires the use of NVD's the following Lectures shall be completed:
 1. NITE LAB Night Environment **NITE LAB ASP**
 2. NITE LAB Introduction to NVGs **NITE LAB ASP**
 3. NITE LAB Adjustment Procedures **NITE LAB ASP**
 4. NITE LAB Misperceptions and Illusions **NITE LAB ASP**
 - c. In direct support of the Confined Area Landings (CAL) Stage, the following academic syllabus shall be completed:
 - (1) Self-Paced Readings:
 - (a) NATOPS Chapters 8,18
 - (b) TACMAN Chapters 2,10,21

(2) Lectures: N/A

- d. In direct support of the Deck Landing Qualification (DLQ) Stage, the following academic syllabus shall be completed:

(1) Self-Paced Readings:

- (a) NATOPS Chapters 8, 9, 10, 13, 16, 18
- (b) MAWTS-1 Helicopter NVD Manual
- (c) LHA/LPH/LHD NATOPS

(2) Lectures: N/A

- e. In direct support of the Terrain Flight/Navigation (TNAV) Stage, the following Academic syllabus shall be completed:

(1) Self-Paced Readings:

- (a) TACMAN Chapters 2, 9, 10, 21, 23
- (b) NATOPS Chapters 6, 8, 10, 18
- (c) MAWTS-1 Helicopter NVD Manual

(2) Lectures:

(a) Prior to stage Initiation the following lectures shall be completed

- 1. (EAD) Terrain Flight For Enlisted Aircrew **EAD ASP**

- f. In direct support of the Air-To-Ground (AG) Stage, the following academic syllabus shall be completed:

(1) Self-Paced Readings:

- (a) TACMAN Chapters 5,6,7,25
- (b) NATOPS Chapters 17
- (c) MAWTS-1 Aerial Gunnery Manual

(2) Lectures:

(a) Prior to Stage Initiation the following lectures shall be completed:

- 1. EAD Fundamentals Of Aerial Gunnery **EAD ASP**

(b) Prior to flying any AG sortie, the corresponding lecture shall be completed for the weapons system utilized:

- | | |
|----------------------------------|---------|
| 1. EAD XM-218/GAU-16 Machine Gun | EAD ASP |
| 2. EAD GAU-17/A Machine Gun | EAD ASP |
| 3. EAD M240D Machine Gun | EAD ASP |

(c) Prior any AG sortie utilizing NVDs the following lectures shall be completed:

- | | |
|----------------------------|---------|
| 1. EAD Laser Safety | EAD ASP |
| 2. EAD Laser Bore Sighting | EAD ASP |

g. In direct support of the Escort (ESC) Stage, the following academic syllabus shall be completed:

(1) Self-Paced Readings:

(a) TACMAN Chapters 9,16, 18, 19, 20

(2) Lectures:

(a) Prior to Stage Initiation the following lectures shall be completed:

- | | |
|--|---------|
| 1. EAD Basic Principles of Escort Operations | EAD ASP |
| 2. EAD Tactical Recovery of Aircraft and Personnel | EAD ASP |

h. In direct support of the Night System (NS) Stage, the following academic syllabus shall be completed:

(1) Self-Paced Readings:

(a) TACMAN Chapters 10, 21, 23, 25

(b) NATOPS Chapters 8, 18

(c) MAWTS-1 Helicopter NVD Manual

(2) Lectures: N/A

i. In direct support of the Forward Air Control (FAC) stage, the following academic Syllabus shall be completed:

(1) Self-Paced Readings:

(a) TACMAN Chapters 9, 12, 15, 16, 17, 18, 19, 20

(b) MAWTS-1 Aerial Gunnery Manual

(2) Lectures:

- j. In direct support of the Tactics (TAC) Stage, the following academic syllabus shall be completed:

(1) Self-Paced Readings:

(a) TACMAN Chapters 9, 12, 15, 16, 17, 18, 19, 20

(2) Lectures: N/A

2. The following syllabus supports the 300-level (Combat Qualified) phase of training:

- a. In direct support of the Advance Night Systems Qualification (ANSQ) Stage, the following academic syllabus shall be completed:

(1) Self-Paced Readings:

(a) TACMAN Chapters 10, 21, 23,

(b) NATOPS Chapters 8, 18

(c) MAWTS-1 Helicopter NVD Manual

(2) Lectures:

(a) Prior to Stage Initiation the following lectures shall be completed:

1. NITE LAB NVG Operations

NITE LAB ASP

- b. In direct support of the HIE Stage, the following academic syllabus shall be completed:

(1) Self-Paced Readings:

(a) TACMAN Chapter 13

(b) NATOPS Chapters 12, 18

(c) MAWTS-1 Helicopter NVD Manual

(2) Lectures:

(a) Prior to each applicable Stage Initiation the following lectures shall be completed:

1. EAD Fast Rope Operations

EAD ASP

2. EAD Rappel Operations

EAD ASP

- c. In direct support of the Deck Landing Qualification (DLQ), the following academic syllabus shall be completed:
- (1) Self-Paced Readings:
- (a) NATOPS Chapters 8, 10, 13, 16, 18
 - (b) MAWTS-1 Helicopter NVD Manual
 - (c) LHA/LPH/LHD NATOPS
- (2) Lectures: N/A
- d. In direct support of the Escort (ESC) Stage, the following academic syllabus shall be completed:
- (1) Self-Paced Readings:
- (a) TACMAN Chapters 9, 16, 18, 19, 20
- (2) Lectures: N/A
- e. In direct support of the Defensive Maneuvers (DM) Stage, the following academic syllabus shall be completed:
- (1) Self-Paced Readings:
- (a) TACMAN Chapters 2, 3, 4, 8, 18, 22
 - (b) UH-1N DM Guide
- (2) Lectures:
- (a) **Prior to Stage Initiation:**
- 1. EAD Introduction to DM for Enlisted Aircrew EAD ASP
 - 2. EAD Introduction to UH-1N DM Part 2 EAD ASP
 - 3. EAD Basic Principles of Electronic Warfare EAD ASP
 - 4. EADAN/ALE-39 / AN/AAR-47 System Brief for Enlisted Aircrew EAD ASP
 - 5. ASD AN/APR-39 (V) 1 ASD CLASSIFIED ASP
 - 6. ASD Radar SAM Threat ASD CLASSIFIED ASP
- (b) **Prior to Stage Completion:**
- 1. ASD AN/ALQ-144 ASD CLASSIFIED ASP

2. ASD AAA Threat
3. ASD IR Sam Threat
4. ASD Attack HELO Threat

ASD CLASSIFIED ASP
ASD CLASSIFIED ASP
ASD CLASSIFIED ASP

- f. In direct support of the Air-To-Ground (AG) Stage, the following academic syllabus shall be completed:

(1) Self-Paced Readings:

- (a) TACMAN Chapters 5, 6, 7, 25
- (b) NATOPS Chapters 17
- (c) EAD MAWTS-1 Aerial Gunnery Manual
- (d) MAWTS-1 Helicopter NVD Manual

(2) Lectures: N/A

- g. In direct support of the Tactics (TAC) Stage, the following academic syllabus shall be completed:

(1) Self-Paced Readings:

- (a) TACMAN Chapters 9, 11, 15, 16, 17, 18, 19, 20

(2) Lectures:

(a) **Prior to Stage Initiation:**

1. ASD ACEOI
2. EAD MOUT

ASD ASP
EAD ASP

(b) **Prior to Stage Completion:**

1. MAWTS-1 ROE and the Laws of War

GENERIC CLASSIFIED ASP

3. The following syllabus supports the 400-level (Full Combat Qualified) phase of training:

- a. In direct support of the HIE Stage, the following academic syllabus shall be completed:

(1) Self-Paced Readings:

- (a) TACMAN Chapter 13
- (b) NATOPS Chapters 12, 18

(2) Lectures:

(a) Prior to each applicable flight the following lectures shall be completed:

1. EAD Helocast Operations EAD ASP
2. EAD SPIE Operations EAD ASP

b. In direct support of the Air-To-Air (AAG) Stage, the following academic syllabus Should be completed:

(1) Self-Paced Readings:

- (a) TACMAN Chapters 4, 5, 6, 7
- (b) NATOPS Chapters 17
- (c) EAD MAWTS-1 Aerial Gunnery Manual (U)

(2) Lectures: N/A

c. In direct support of the Defensive Maneuvers (DM) Stage, the following academic syllabus shall be completed:

(1) Self-Paced Readings:

- (a) TACMAN Chapters 2, 3, 4,8, 18,22
- (b) UH-1N DM Guide

(2) Lectures:

(a) Prior to Stage Initiation:

1. ASD FW Threat ASD CLASSIFIED ASP

d. In direct support of the External Weights (EXT) stage, the following academic Syllabus should be completed:

(1) Self-Paced Reading:

- (a) TACMAN Chapters 15
- (b) NATOPS Chapters 2

(2) Lectures: N/A

UH-1N AERIAL GUNNERY INSTRUCTOR (AGI) CERTIFICATION COURSE

Course Objective: To certify a UH-1N crew chief or aerial gunner as an Aerial Gunnery Instructor (AGI) capable of safely conducting academic and airborne instruction in the employment of crew served weapons in all aspects of tactical flight.

Length: IUT: 1 classroom hour, 1 one time Moving target sortie, 2 sorties per weapons system

Cert: 1 hour class presentation, 1 hour test and 1 sortie per weapon system

Notes:

1. The UH-1N AGI Certification Course is developed by MAWTS-1. Upon certification by an enlisted WTI or MAWTS-1 crew chief instructor, the AGI designation per specific weapons systems may be made at the discretion of the squadron commanding officer.

Prerequisites:

1. Designated aerial gunner on each specific weapon system and current IAW MCO P3500.16.
2. Night Systems Qualified (NSQ) and current IAW MCO P3500.14 and MCO P3500.16
3. Designated TERF-I

IUT STAGE

IUT Academic Syllabus:

1. The AGI under training (IUT) shall review the MAWTS-1 Aerial Gunnery Manual and the UH-1N Tactical Manual (Vol I & II).
2. The IUT shall review and be capable of presenting all classes listed in the UH-1N Crew Member AG Academic Course.
3. The academic syllabus shall be completed within 60 days prior to beginning the certification stage of the flight syllabus.
4. The following class shall be presented to the AGI under training prior to the certification stage of the flight syllabus:

IUT Flight Syllabus:

1. The squadron will ensure that the IUT is prepared for certification. The certification stage of the flight syllabus for each weapon system must be completed within six (6) months following the first IUT flight. If six months have elapsed since completion of any IUT flight, that flight must be reflown prior to completing the final certification flight.
2. The following syllabus flights if flown during the day, shall be instructed by an AGI. All AGI syllabus flights flown at night, shall be instructed by an NSI.
3. The AG 540 shall be flown one time, with any three of the UH-1N crew served weapons at the start of the AGIUT stage.

AG 540	1 UH-1N	D
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Goal: Demonstrate instructional techniques during aerial gunnery at a moving target, either towed aerial banner, moving land target, or shadow gunnery.

Requirements:

1. Evaluate instructional techniques in the usage and application of the following:
 - a. Weapons terminology
 - b. Sectors of fire
 - c. Lookout doctrine
 - d. Weapons preparation
 - e. Safety
 - f. Malfunctions and stoppages
 - g. Crew member responsibilities
 - h. Crew served weapons checklist application
 - i. Range estimation and lead computations
 - j. Situational Awareness
 - k. Crew coordination
 - l. Instructor Technique

Ordnance: 300 .50 Cal (GAU-16)/1500 7.62mm (GAU-17) / 500 7.62 mm (M 240)

External Support Requirements: Range/Ordnance Request

AG 541	2 UH-1N	D/NS
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Goal: Develop instructional techniques during day or night aerial gunnery.

Requirements:

1. Evaluate instructional techniques in the usage and application of the following during day or night aerial gunnery:
 - a. Weapons terminology
 - b. Sectors of fire
 - c. Lookout doctrine
 - d. Weapons preparation
 - e. Safety
 - f. NVD usage
 - g. Laser procedures
 - h. Malfunctions and stoppages
 - i. Crew member responsibilities
 - j. Crew served weapons checklist application
 - k. Range estimation and lead computations
 - l. Situational Awareness
 - m. Crew coordination
 - n. Instructor Technique

Ordnance: 300 .50 Cal (GAU-16)

External Support Requirements: Range/Ordnance Request

AG 542

2 UH-1N

NS

Goal: Demonstrate instructional techniques during night aerial gunnery employment under high or low light level in a multi-aircraft shoot.

Requirements:

1. Evaluate the IUT's instructional abilities during an NVG aerial gunnery flight emphasizing the following:
 - a. Weapons terminology
 - b. Sectors of fire
 - c. Lookout doctrine
 - d. Weapons preparation
 - e. Safety
 - f. NVD usage
 - g. Laser procedures
 - h. Malfunctions and stoppages
 - i. Crew member responsibilities
 - j. Crew served weapons checklist application
 - k. Range estimation and lead computations
 - l. Situational Awareness

- m. Crew coordination
- n. Instructor Technique

Ordinance: 300 .50 Cal (GAU-16)

External Support Requirements: Range/Ordinance Request

CERTIFICATION STAGE

Certification Academic Syllabus

1. The IUT shall successfully complete a written exam for the specified weapon system,
administered by an enlisted WTI or MAWTS-1 crew chief instructor prior to the certification flight. The minimum-passing grade for the exam is 80%. In the event of an exam failure, the certification will be terminated, and another attempt will not be allowed for at least one month.
2. The IUT shall present to an enlisted WTI or MAWTS-1 crew chief instructor one of the
classes listed in the UH-1N Crew Member AG Academic Course prior to completing the first certification flight. Subsequent weapons certification classes are recommended, but not required.
3. The IUT will demonstrate to an enlisted WTI or MAWTS-1 crew chief instructor the ability to instruct aerial gunnery training.

AG 543 E

2 UH-1N

NS

Goal: Demonstrate instructional techniques during aerial gunnery employment in a multi-aircraft (two aircraft minimum) tactical scenario under low light level conditions.

Requirements:

1. Evaluate the IUTs instructional abilities during an NVG (Low light level) aerial gunnery flight emphasizing the following:
 - a. Weapons terminology
 - b. Sectors of fire
 - c. Lookout doctrine
 - d. Weapons preparation
 - e. Safety
 - f. NVD usage
 - g. Laser procedures
 - h. Malfunctions and stoppages

- i. Crew member responsibilities
- j. Crew served weapons checklist application
- k. Range estimation and lead computations
- l. Situational Awareness
- m. Crew coordination
- n. Instructor Technique

Ordnance: 300 .50 Cal (GAU-16)

External Support Requirements: Range/Ordnance Request

IUT Flight Syllabus:

1. The squadron will ensure that the IUT is prepared for certification. The certification stage of the flight syllabus for each weapon system must be completed within six (6) months following the first IUT flight. If six months have elapsed since completion of any IUT flight, that flight must be reflowed prior to completing the final certification flight.
2. The following syllabus flights if flown during the day, shall be instructed by an AGI. All AGI syllabus flights flown at night, shall be instructed by an NSI.
3. The AG 540 shall be flown one time, with any three of the UH-1N crew served weapons at the start of the AGIUT stage.

<u>AG 544</u>	<u>2 UH-1N</u>	<u>D/NS</u>
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Goal: Develop instructional techniques during day or night aerial gunnery.

Requirements:

1. Evaluate instructional techniques in the usage and application of the following during day or night aerial gunnery:
 - a. Weapons terminology
 - b. Sectors of fire
 - c. Lookout doctrine
 - d. Weapons preparation
 - e. Safety
 - f. NVD usage
 - g. Laser procedures
 - h. Malfunctions and stoppages
 - i. Crew member responsibilities
 - j. Crew served weapons checklist application
 - k. Range estimation and lead computations

- l. Situational Awareness
- m. Crew coordination
- n. Instructor Technique

Ordnance: 1500 7.62mm (GAU-17)

External Support Requirements: Range/Ordnance Request

<u>AG 545</u>	<u>2 UH-1N</u>	<u>NS</u>
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Goal: Demonstrate instructional techniques during night aerial gunnery employment under high or low light level in a multi-aircraft shoot.

Requirements:

1. Evaluate the IUT's instructional abilities during an NVG aerial gunnery flight emphasizing the following:
 - a. Weapons terminology
 - b. Sectors of fire
 - c. Lookout doctrine
 - d. Weapons preparation
 - e. Safety
 - f. NVD usage
 - g. Laser procedures
 - h. Malfunctions and stoppages
 - i. Crew member responsibilities
 - j. Crew served weapons checklist application
 - k. Range estimation and lead computations
 - l. Situational Awareness
 - m. Crew coordination
 - n. Instructor Technique

Ordnance: 1500 7.62mm (GAU-17)

External Support Requirements: Range/Ordnance Request

CERTIFICATION STAGE

Certification Academic Syllabus

1. The IUT shall successfully complete a written exam for the specified weapon system, administered by an enlisted WTI or MAWTS-1 crew chief instructor prior to the certification flight. The minimum-passing grade for the exam is 80%. In the

event of an exam failure, the certification will be terminated, and another attempt will not be allowed for at least one month.

2. The IUT shall present to an enlisted WTI or MAWTS-1 crew chief instructor one of the classes listed in the UH-1N Crew Member AG Academic Course prior to completing the first certification flight. Subsequent weapons certification classes are recommended, but not required.
3. The IUT will demonstrate to an enlisted WTI or MAWTS-1 crew chief instructor the ability to instruct aerial gunnery training.

AG 546 E

2 UH-1N

NS

Goal: Demonstrate instructional techniques during aerial gunnery employment in a multi-aircraft (two aircraft minimum) tactical scenario under low light level conditions.

Requirements:

1. Evaluate the IUTs instructional abilities during an NVG (Low light level) aerial gunnery flight emphasizing the following:

- a. Weapons terminology
- b. Sectors of fire
- c. Lookout doctrine
- d. Weapons preparation
- e. Safety
- f. NVD usage
- g. Laser procedures
- h. Malfunctions and stoppages
- i. Crew member responsibilities
- j. Crew served weapons checklist application
- k. Range estimation and lead computations
- l. Situational Awareness
- m. Crew coordination
- n. Instructor Technique

Ordinance: 1500 7.62mm (GAU-17)

External Support Requirements: Range/Ordinance Request

IUT Flight Syllabus:

1. The squadron will ensure that the IUT is prepared for certification. The certification stage of the flight syllabus for each weapon system must be

completed within six (6) months following the first IUT flight. If six months have elapsed since completion of any IUT flight, that flight must be reflown prior to completing the final certification flight.

2. The following syllabus flights if flown during the day, shall be instructed by an AGI. All AGI syllabus flights flown at night, shall be instructed by an NSI.
3. The AG 540 shall be flown one time, with any three of the UH-1N crew served weapons at the start of the AGIUT stage.

AG 547

2 UH-1N

D/NS

Goal: Develop instructional techniques during day or night aerial gunnery.

Requirements:

1. Evaluate instructional techniques in the usage and application of the following during day or night aerial gunnery:
 - a. Weapons terminology
 - b. Sectors of fire
 - c. Lookout doctrine
 - d. Weapons preparation
 - e. Safety
 - f. NVD usage
 - g. Laser procedures
 - h. Malfunctions and stoppages
 - i. Crew member responsibilities
 - j. Crew served weapons checklist application
 - k. Range estimation and lead computations
 - l. Situational Awareness
 - m. Crew coordination
 - n. Instructor Technique

Ordnance: 500 7.62mm (M240)

External Support Requirements: Range/Ordnance Request

AG 548

2 UH-1N

NS

Goal: Demonstrate instructional techniques during night aerial gunnery employment under high or low light level in a multi-aircraft shoot.

Requirements:

1. Evaluate the IUT's instructional abilities during an NVG aerial gunnery flight emphasizing the following:

- a. Weapons terminology
- b. Sectors of fire
- c. Lookout doctrine
- d. Weapons preparation
- e. Safety
- f. NVD usage
- g. Laser procedures
- h. Malfunctions and stoppages
- i. Crew member responsibilities
- j. Crew served weapons checklist application
- k. Range estimation and lead computations
- l. Situational Awareness
- m. Crew coordination
- n. Instructor Technique

Ordnance: 500 7.62mm (M240)

External Support Requirements: Range/Ordnance Request

CERTIFICATION STAGE**Certification Academic Syllabus**

1. The IUT shall successfully complete a written exam for the specified weapon system, administered by an enlisted WTI or MAWTS-1 crew chief instructor prior to the certification flight. The minimum-passing grade for the exam is 80%. In the event of an exam failure, the certification will be terminated, and another attempt will not be allowed for at least one month.
2. The IUT shall present to an enlisted WTI or MAWTS-1 crew chief instructor one of the classes listed in the UH-1N Crew Member AG Academic Course prior to completing the first certification flight. Subsequent weapons certification classes are recommended, but not required.
3. The IUT will demonstrate to an enlisted WTI or MAWTS-1 crew chief instructor the ability to instruct aerial gunnery training.

Goal: Demonstrate instructional techniques during aerial gunnery employment in a multi-aircraft (two aircraft minimum) tactical scenario under low light level conditions.

Requirements:

1. Evaluate the IUTs instructional abilities during an NVG (Low light level) aerial gunnery flight emphasizing the following:

- a. Weapons terminology
- b. Sectors of fire
- c. Lookout doctrine
- d. Weapons preparation
- e. Safety
- f. NVD usage
- g. Laser procedures
- h. Malfunctions and stoppages
- i. Crew member responsibilities
- j. Crew served weapons checklist application
- k. Range estimation and lead computations
- l. Situational Awareness
- m. Crew coordination
- n. Instructor Technique

Ordnance: 500 7.62mm (M240)

External Support Requirements: Range/Ordnance Request

RECERTIFICATION REQUIREMENTS

Refresher:

1. Previously designated UH-1N AGIs returning to the UH-1N that require refresher training in accordance with MCO P3500.14 must complete a recertification course. Upon recertification by an enlisted WTI or MAWTS-1 crew chief instructor, the AGI designation for each specific weapon system can be made by the squadron commanding officer.
2. The following comprises the recertification process:
 - a. IUT must meet all prerequisites previously listed.
 - b. IUT must complete the AG 543, AG 546 and AG 549 sorties, evaluated by an

enlisted WTI or MAWTS-1 crew chief instructor.

Transition:

1. Crew member designated as an AGI in an aircraft other than the UH-1N that transition to the UH-1N must meet the prerequisites and complete the AG 543, AG 546 and AG 549 sorties evaluated by an enlisted WTI or MAWTS-1 crew chief instructor.

Conversion:

1. Crew members designated as an AGI in an aircraft other than the UH-1N that undergo conversion training to the UH-1N must meet the prerequisites and complete the AG 543, AG 546 and AG 549 sorties evaluated by an enlisted WTI or MAWTS-1 crew chief.

UH-1N CREW CHIEF NIGHT SYSTEMS FAMILIARIZATION INSTRUCTOR (NSFI) CERTIFICATION COURSE

Course Objective: To certify a UH-1N crew chief as a Night Systems Familiarization Instructor (NSFI) capable of instructing in the familiarization phase of night vision device (NVD).

Length: IUT: 1 classroom hours, 1 sortie

Cert: 1 hour class presentation, 1 hour test and 1 sortie

Notes:

1. The UH-1N Crew Chief NSFI Certification Course is developed by MAWTS-1. It is designed to be taught by an enlisted NSFI, NSI, WTI or MAWTS-1 crew chief instructor. Upon certification by an enlisted NSI, WTI or MAWTS-1 crew chief, the NSFI designation can be made at the discretion of the squadron commanding officer.
2. Night systems familiarization training is defined as basic night vision device orientation and use. Flight areas include low work, touch and go landings, emergencies, CALs, and preplanned navigation routes.

Prerequisites:

1. Night Systems Qualified (NSQ) and current in accordance with MCO P3500.14 and MCO P3500.16.
2. Designated TERFI.

IUT STAGE

IUT Academic Syllabus:

1. The crew chief instructor under training (IUT) shall review the MAWTS-1 NVD Manual and the UH-1N Tactical Manual (Vol I & II).
2. The IUT shall review and be capable of presenting all classes listed in the UH-1N Crew Member NS Academic Course.

IUT Flight Syllabus:

1. The squadron will ensure that the IUT is prepared for certification. The certification stage of the flight syllabus shall be completed within six (6) months following the first IUT flight. If six months have

elapsed since completion of any IUT flight, that flight must be reflight prior to completing the final certification flight.

2. The following flight will be instructed by an enlisted NSFI, NSI, or WTI crew chief:

NVD 560	1 UH-1N	NS
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Goal: Evaluate the IUTs ability to instruct low work and touch and go maneuvers utilizing NVDs under HLL conditions as defined by MCO P3500.14.

Requirements:

1. Review low work, pattern work, touch and go, and simulated emergencies, with emphasis on instructional technique.
2. Brief and discuss visual illusions, depth perception, NVG failures, NVG lighting techniques, and NVG training restrictions.

Ordinance: N/A

External Support Requirements: N/A

CERTIFICATION STAGE

Certification Academic Syllabus

1. The IUT shall present to an enlisted WTI or MAWTS-1 crew chief instructor one of the classes listed in the UH-1N Crew Member NS Academic Course, as determined by the enlisted WTI, or MAWTS-1 crew chief, before completing the certification stage of the flight syllabus.
2. The IUT shall successfully complete a written NSFI exam administered by an enlisted WTI or MAWTS-1 crew chief instructor prior to beginning the certification stage of the flight syllabus. The minimum-passing grade for the exam is 80%. In the event of an exam failure, the certification will be terminated, and another attempt will not be allowed for at least one month.
3. The IUT will demonstrate to an enlisted NSI, WTI, or MAWTS-1 crew chief instructor the ability to instruct night systems operations.

NVD 561	2 A/C	NS
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Goal: Evaluate the IUT's ability to instruct NVD familiarization training during navigation, CALs, and formation flying under HLL conditions as defined by MCO P3500.14.

Requirements:

1. Review and conduct CALs at LZs which meets the special considerations for landing zones outlined in the MAWTS-1 Night Vision Devices Manual.
2. Review and conduct a navigation route (50 NM minimum) at or above 200ft AGL.
3. Brief and discuss map preparation, route planning, visual illusions, depth perception, NVG failures, and inadvertent IMC.
4. Conduct Formation flying emphasizing the following:
 - a. Closure rate
 - b. Aircraft lighting
 - c. Light signals
 - d. Lookout responsibilities
 - e. Target fixation

Ordinance: N/A

External Support Requirements: N/A

RECERTIFICATION REQUIREMENTS**Refresher:**

1. Previously designated UH-1N crew chief NSFIs or NSIs returning to the UH-1N that require refresher training in accordance with MCO P3500.14 must complete the NSFI recertification course. Upon recertification by an enlisted NSI, WTI or MAWTS-1 crew chief instructor, the NSFI designation can be made by the squadron commanding officer.
2. The following comprises the rectification process:
 - a. IUT must meet all prerequisites previously listed.
 - b. The IUT must complete the NVD 561 flight, evaluated by an enlisted NSI, WTI, or MAWTS-1 crew chief instructor.

Transition:

1. Crew chiefs designated as an NSI or NSFI in an aircraft other than the UH-1N, that transition to the UH-1N must meet the prerequisites and fly NVD 561 evaluated by an enlisted NSI, WTI, or MAWTS-1 crew chief instructor.

Conversion:

1. Crew chiefs designated as an NSI or NSFI in an aircraft other than the UH-1N, that transition to the UH-1N must meet the prerequisites and fly NVD 561 evaluated by an enlisted NSI, WTI, or MAWTS-1 crew chief instructor.

UH-1N CREW CHIEF NIGHT SYSTEMS SAR INSTRUCTOR (NSSI) CERTIFICATION COURSE

Course Objective: To certify the UH-1N crew chief as Night Systems SAR Instructor capable of safely conducting ground and airborne instruction of the night vision device (NVD) flight syllabus outlined in MCO P3500.17

Length: IUT: 1 classroom hour, 2 sorties

Cert: 1 hour class presentation, 1 hour test and 1 sortie

Notes:

1. The UH-1N NSSI Course is developed by MAWTS-1. Upon certification by a crew chief NSI, WTI or MAWTS-1 crew chief instructor, the NSSI designation can be made at the discretion of the squadron commanding officer.
2. Previously designated and current UH-1N crew chief NSIs can be designated as an NSSI at the discretion of the squadron commanding officer.

Prerequisites: Night Systems Qualified (NSQ) and current in accordance with MCO P3500.14 and MCO P3500.16.

IUT STAGE

IUT Academic Syllabus:

1. The NSSI crew chief under training (IUT) shall review the MAWTS-1 NVD Manual.
2. The IUT shall review and be capable of presenting all classes listed in the UH-1N Crew Member NS Academics Course.

IUT Flight Syllabus:

1. The squadron will ensure that the IUT is prepared for certification. The certification stage of the flight syllabus must be complete within six (6) months following the first IUT flight. If six months have elapsed since completion of any IUT flight, that flight must be reflight prior to completing the final certification flight.
2. The following flights will be instructed by an enlisted NSSI, NSI, WTI or MAWTS-1 crew chief instructor:

Goal: Conduct basic operations, CALs, and navigation while utilizing NVDs in HLL conditions as defined by MCO P3500.14.

Requirements:

1. Evaluate the IUT's ability to instruct single aircraft CALs and navigation while utilizing NVDs. The IUT shall remain oriented within 500 meters while conducting a navigation route (25 NM minimum) above 200 ft AGL.
2. Brief and discuss NVG operations and limitations, NVG emergencies, lookout doctrine, aircraft lighting, crew coordination/comfort level, depth perception, visual illusions, waveoffs, and inadvertent IMC.

Ordinance: N/A

External Support Requirements: N/A

Goal: Conduct basic operations, CALs, and navigation while utilizing NVDs in LLL conditions as defined by MCO P3500.14.

Requirements:

1. Evaluate the IUT's ability to instruct single aircraft CALs and navigation while utilizing NVGs. The IUT shall remain oriented within 500 meters while conducting a navigation route (25 NM minimum) above 200 ft AGL.
2. Brief and discuss low light level NVG operations and limitations, NVG emergencies, lookout doctrine, aircraft lighting, crew coordination/comfort level, depth perception, visual illusions, waveoffs, and inadvertent IMC.

Ordinance: N/A

External Support Requirements: N/A

CERTIFICATION STAGE

Certification Academic Syllabus

1. The IUT shall present to an enlisted NSI, WTI or MAWTS-1 crew chief one of the classes listed in the UH-IN Crew Member NS Academics Course, as determined by the enlisted NSI, WTI or MAWTS-1 crew chief instructor, before completing the certification stage of the flight syllabus.

2. The IUT will successfully complete a written exam administered by an enlisted NSI, WTI or MAWTS-1 crew chief prior to beginning the certification stage of the flight syllabus. The minimum passing grade for the exam is 80%. In the event of an exam failure, the certification will be terminated, and another attempt will not be allowed for at least one month.
3. The IUT will demonstrate to an enlisted NSI, WTI or MAWTS-1 crew chief instructor the ability to instruct night systems operations.

NVG 564

1 UH-IN

NS

Goal: Evaluate the IUT's ability to instruct basic operations, CALs and navigation while utilizing NVGs in LLL conditions as defined by MCO P3500.14.

Certification Flight Syllabus

Requirements:

1. Evaluate the IUT's ability to instruct single aircraft CALs and navigation while utilizing NVGs. The IUT shall remain oriented within 500 meters while conducting a navigation route (25 NM minimum) above 200ft AGL.
2. Brief and discuss low light level NVG operations and limitations, NVG emergencies, lookout doctrine, aircraft lighting, crew coordination/comfort level, depth perception, visual illusions, waveoffs, and inadvertent IMC.

Ordinance: N/A

External Support Requirements: N/A

RECERTIFICATION REQUIREMENTS

Refresher / Transition / Conversion: N/A

UH-1N CREW CHIEF TERRAIN FLIGHT INSTRUCTOR (TERFI) CERTIFICATION COURSE

Course Objective: To certify the UH-1N crew chief as a terrain flight instructor (TERFI) capable of safely conducting ground and airborne instruction of the UH-1N terrain flight syllabus outlined in MCO P3500.16.

Length: IUT: 1 classroom hour, 1 sortie
Cert: 1 hour class presentation, 1 hour test and 1 sortie

Notes: The UH-1N Crew Chief TERFI Certification Course is developed by MAWTS-1. Upon certification by an enlisted WTI or MAWTS-1 crew chief instructor, the TERFI designation may be made at the discretion of the squadron commanding officer.

Prerequisites: Combat Qualified Stage complete and current in accordance with MCO P3500.14 and MCO P3500.16.

IUT STAGE

IUT Academic Syllabus:

1. The TERFI crew chief under training (IUT) shall review the UH-1N Tactical Manual (Vol I and Vol II).
2. The IUT shall review and be capable of teaching all classes listed in the UH-1N Crew Member TERF Academic Course prior to beginning the IUT stage of the flight syllabus.

IUT Flight Syllabus: The squadron will ensure that the IUT is prepared for certification. During the IUT stage an enlisted WTI or MAWTS-1 crew chief instructor will demonstrate to the IUT proper TERFI techniques during TERF syllabus flights outlined in MCO P3500.16.

CERTIFICATION STAGE

Certification Academic Syllabus

1. The IUT shall present one of the classes listed in the UH-1N Crew Member TERF Academic Course to an enlisted WTI or MAWTS-1 crew chief instructor prior to finishing the certification process.
2. The IUT shall successfully complete a written TERFI exam administered by an enlisted WTI or MAWTS-1 crew chief instructor prior to beginning the certification stage of the flight syllabus. The minimum-passing grade for the exam is 80%. In the event of an exam failure, the certification will be terminated, and another attempt will not be allowed for at least month.

3. The crew chief IUT will demonstrate to an enlisted WTI or MAWTS-1 crew chief instructor the ability to conduct terrain flight instruction.
4. The following flights will be evaluated by an enlisted WTI or MAWTS-1 crew chief instructor:
5. The TERF 570 may be flown in conjunction with the TERF 571.

Certification Flight Syllabus

TERF 570 E 1 A/C D

Goal: Demonstrate instructional techniques during terrain flight and navigation.

Requirements:

1. Demonstrate instructional techniques in assisting the pilot at all TERF altitudes with emphasis on lookout doctrine, crew coordination, and obstacle clearance.
 - a. Briefing/Preparation
 - b. ICS Procedures
 - c. Crew Coordination
 - d. Obstacle Clearance
 - e. Situational Awareness
 - f. Lookout Doctrine
 - g. 3 Levels of TERF
 - h. TERF Manuevers
 - i. Rotor Awareness
 - j. Emergency Procedures
 - k. Navigational Assistance

Ordinance: N/A

External Support Requirements: N/A

TERF 571E 2 A/C D

Goal: Demonstrate instructional techniques during multi-aircraft terrain flight and navigation.

Requirements: Demonstrate instructional techniques in assisting the pilot at all TERF altitudes with emphasis on lookout doctrine, crew coordination, navigational assistance, and obstacle clearance.

- a. Breifing/Preparation
- b. ICS Procedures
- c. Crew Coordination
- d. Obstacle Clearance
- e. Situational Awareness
- f. Lookout Doctrine
- g. 3 Levels of TERF
- h. TERF Manuevers
- i. Rotor Awareness
- j. Emergency Procedures
- k. Navigational Assistance

Ordinance: N/A

External Support Requirements: N/A

RECERTIFICATION REQUIREMENTS

Refresher:

1. Designated UH-1N TERFIs returning to the UH-1N that require refresher training in accordance with MCO P3500.14 must complete a TERFI recertification course. Upon recertification by an enlisted WTI or MAWTS-1 crew chief, the TERFI designation can be made by the squadron commanding officer.
2. The following comprises the TERFI recertification process:
 - a. Combat Qualified stage complete and current IAW MCO P3500.14 and MCO P3500.16.
 - b. IUT must complete the TERF 571 sortie evaluated by an enlisted WTI or MAWTS-1 crew chief instructor.

Transition:

1. Crew chiefs designated as a TERFI in an aircraft other than the UH-1N, that transition to the UH-1N must complete the TERF 570, 571 sortie evaluated by an enlisted WTI or MAWTS-1 crew chief instructor.

Conversion:

1. Crew chiefs designated as a TERFI in an aircraft other than the UH-1N that undergo conversion training must complete the TERF 570, 571 sortie evaluated by an enlisted WTI or MAWTS-1 crew chief instructor.

UH-1N CREW CHIEF DEFENSIVE AIR COMBAT TACTICS INSTRUCTOR (DACTI) CERTIFICATION COURSE

Course Objective: To certify the UH-1N crew chief as an instructor capable of safely conducting ground and airborne instruction of the UH-1N Defensive Air Combat Tactics (DACT) syllabus outlined in MCO P3500.16.

Length: IUT: 1 classroom hour, 2 sortie

Cert: 1 hour class presentation, 1 hour test and 2 sorties

Notes: 2 The UH-1N Crew Chief DACTI Certification Course is developed by MAWTS-1. Upon certification by a MAWTS-1 crew chief instructor, the DACTI designation may be made at the discretion of the squadron commanding officer.

1 Instructors presently designated DMIs and current IAW MCO P3500.16 may be designated DACTIs at the discretion of the Squadron Commanding Officer.

Prerequisite:

2. Designated TERFI.

1. Defensive Air Combat Tactics Qualified (DACTQ) and current IAW MCO P3500.14 and MCO P3500.16.

IUT STAGE

IUT Academic Syllabus:

1. The DACTI crew chief under training (IUT) shall review the MAWTS-1 Helicopter DM Guide, UH-1N DACT guide and Tactical Manual (Vol. I & II).
2. The IUT shall review and be capable of teaching all classes listed in the UH-1N Crewmember DACT Academic Course prior to beginning the IUT stage of the flight syllabus.

IUT Flight Syllabus:

1. The squadron will ensure that the IUT is prepared for certification. The certification stage of the flight syllabus must be completed within six (6) months following the first IUT flight. If six months have elapsed since completion of any IUT flight, that flight must be reflown prior to completing the final certification flight.
2. The following flights will be instructed by an enlisted DACTI, WTI or MAWTS-1 crew chief instructor.

Goal: Demonstrate instructional techniques during DACT 1 vs. 1 RW Basic Tactics.

Requirements:

1. Brief and discuss DACT safety considerations, crew coordination communication and situational awareness.
2. Brief and discuss air to air gunnery procedures to include range estimation, lead requirements, and TOF requirements.
3. Demonstrate instructional techniques in the usage and application of the following during 1 vs. 1 RW Tactics:
 - a. Communication (use of common terminology)
 - b. Detection of enemy aircraft (lookout doctrine)
 - c. Obstacle avoidance
 - d. Bandit/bogey information (identification, profiles)
 - e. ASE employment
 - f. Weapons employment
 - g. Crew chief responsibilities
 - h. Crew Coordination
 - i. Situational Awareness
 - j. Understanding of raining rules
 - k. Instructional Technique

Ordinance: N/A

External Support Requirements: One FW aggressor.

Goal: Evaluate instructional techniques during 2 vs. 1 FW DACT.

Requirements:

1. Brief and discuss DACT safety considerations, crew coordination communication, terminology, wingman responsibilities/tactics, and situational awareness.
2. Brief and discuss air to air gunnery procedures, include range estimation, lead requirements, and TOF requirements.
3. Demonstrate instructional techniques in the usage and application of the following during 2 vs. 1 FW DACT.

- a. Communication (use of common terminology)
- b. Detection of enemy aircraft (lookout doctrine)
- c. Obstacle avoidance
- d. Bandit/bogey information (identification, profiles)
- e. Closure rate
- f. ASE employment
- g. Weapon employment
- h. Section/Wingman tactics
- j. Crew chief responsibilities
- k. Crew Coordination
- l. Situational Awareness
- m. Understanding of training rules
- n. Instructional Technique

Ordinance: N/A

External Support Requirements: N/A

CERTIFICATION STAGE

Certification Academic Syllabus

1. The IUT shall present one of the classes listed in the UH-1N Crewmember DACT Academic Course to a MAWTS-1 crew chief instructor prior to the certification flight.
2. The IUT shall successfully complete a written DACTI Exam administered by a MAWTS-1 crew chief prior to beginning the certification stage of the flight syllabus. The minimum passing grade for the exam is 80%. In the event of an exam failure, the certification will be terminated, and another attempt will not be allowed for at least one month.
3. IUT will demonstrate to the MAWTS-1 crew chief instructor the ability to conduct DACT instruction.
4. The following flights will be evaluated by a MAWTS-1 crew chief instructor.

Certification Flight Syllabus

DACT 582E 2 UH-1N vs. 1RW aggressor 3A/C(2RW,1RW)

Goal: Evaluate instructional techniques during 2 vs. 1 RW DACT.

Requirements:

1. Brief and discuss DACT safety considerations, crew coordination communication,

terminology, wingman responsibilities/tactics, and situational awareness.

2. Brief and discuss air to air gunnery procedures, include range estimation, lead requirements, and TOF requirements.
3. Demonstrate instructional techniques in the usage and application of the following during 2 vs. 1 FW DACT.
 - a. Communication (use of common terminology)
 - b. Detection of enemy aircraft (lookout doctrine)
 - c. Obstacle avoidance
 - d. Bandit/bogey information (identification, profiles)
 - e. Closure rate
 - f. ASE employment
 - g. Weapon employment
 - h. Section/Wingman tactics
 - i. Crew chief responsibilities
 - j. Crew Coordination
 - k. Situational Awareness
 - l. Understanding of training rules
 - m. Instructional Technique

Ordinance: N/A

External Support Requirements: N/A

DACT 583E 2 UH-1N vs. 2 FW Escort Operations 5 A/C (3 RW, 2 FW)

Goal: Evaluate instructional techniques during DACT 2 RW v 2 FW in Escort Operations.

Requirements:

1. Brief and discuss DACT safety considerations, crew coordination, communication, and situational awareness.
2. Brief and discuss air to air gunnery procedures to include range estimation, lead requirements, and TOF requirements.
3. Brief and discuss tactical maneuvering and intra-/inter-plane communication and lookout doctrine, with particular attention and consideration for the assault aircraft and the escort flight's responsibilities for that aircraft.
4. The IUT will demonstrate a working knowledge of the capabilities, limitations and envelopes of the threat aircraft.

5. Discuss and simulate weapons and ASE employment.
6. Demonstrate instructional techniques in the usage and application of the following:
 - a. Communication (use of common terminology)
 - b. Obstacle Avoidance
 - c. Detection of enemy aircraft
 - d. Bandit/bogey information (identification, profile)
 - e. Responsibilities of engaged aircraft
 - f. Responsibilities of free aircraft
 - g. Section tactics
 - h. Supporting roles
 - i. Assault aircraft (scatter plan, rendezvous)
 - j. ASE employment
 - k. Weapons Employment
 - l. Crew chief responsibilities
 - m. Crew Coordination
 - n. Situational Awareness
 - o. Understanding of training rules
 - p. Instructor Technique

Ordinance: N/A

External Support Requirements: N/A

RECERTIFICATION REQUIREMENTS

Refresher:

1. Previously designated UH-1N ACMIs returning to the UH-1N requiring refresher or modified refresher training as defined in MCO P3500.14 must be recertified by MAWTS-1. Upon recertification, the DACTI designation may be made at the discretion of the squadron commanding officer. Recertification will be conducted as follows:
 - a. The DACTIUT must meet all prerequisites listed previously.
 - b. The written examination will be administered by a MAWTS-1 instructor. The minimum passing grade for the exam is 80%. In the event of an exam failure, the certification will be terminated and another attempt will not be allowed for at least one month.
 - c. The DACTIUT must complete entire DACTI syllabus. Considering the DACTI course is similar in nature to the ACMI syllabus, the IUT will fly the entire syllabus to serve as both a refresher and recertification syllabus.
2. Previously designated UH-1N DMIs returning to the UH-1N will require

recertification in the DACTI syllabus by MAWTS-1. Upon completion, the DACTI designation can be made at the discretion of the quadron commanding officer. Recertification will be conducted as follows:

- a. The DACTIUT must meet all prerequisites listed previously.
- b. The written examination will be administered by a MAWTS-1 instructor. The minimum passing grade for the exam is 80%. In the event of an exam failure, the certification will be terminated and another attempt will not be allowed for at least one month.
- c. IUT must complete the DACT 582 and DACT 583 flights, evaluated by a MAWTS-1 crew chief instructor.

Transition:

1. Crew chiefs designated as a DACTI in an aircraft other than the UH-1N that transitions to the UH-1N must complete the entire UH-1N crew chief DACTI Certification Course as previously listed.

Conversion:

1. Crew chiefs designated as a DACTI in an aircraft other than the UH-1N that transition to the UH-1N must complete the entire UH-1N Crew Chief DACTI Certification Course as previously listed.

UH-1N CREW CHIEF NIGHT SYSTEMS INSTRUCTOR (NSI) CERTIFICATION COURSE

Course Objective: To certify a UH-1N crew chief as a Night Systems Instructor (NSI) capable of safely conducting ground and airborne instruction of the UH-1N Night Vision Device (NVD) in all aspects of the flight syllabus outlined in MCO P3500.16.

Length: IUT: 1 classroom hour, 2 sorties
Cert: 1 hour class presentation, 1 hour test and 2 sorties

Notes:

1. The UH-1N Crew Chief NSI Course is developed by MAWTS-1. Upon certification by a MAWTS-1 crew chief instructor, the NSI designation may be made at the discretion of the squadron commanding officer.
2. It is recommended that the NSI candidate possess a total of 90 hours of Night Vision Goggle time, 40 hours of which shall be Low Light.

Prerequisites:

1. Night Systems Qualified (NSQ) and current in accordance with MCO P3500.14 and MCO P3500.16.
2. Designated TERFI, and AGI on all three weapon systems.

IUT STAGE

IUT Academic Syllabus:

1. The NSI crew chief under training (IUT) shall review the MAWTS-1 NVD Manual and the UH-1N Tactical Manual (Vol I & II).
2. The IUT shall review and be capable of presenting all classes listed in the UH-1N Crew Member NS Academic Course.

IUT Flight Syllabus:

1. The squadron will ensure that the IUT is prepared for certification. The certification stage of the flight syllabus will be completed within six (6) months following the first flight. If six months have elapsed since completion of any IUT flight, that flight must be reflight prior to completing the final certification flight.
2. The following flights will be instructed by an enlisted NSI, WTI, or MAWTS-1 crew chief instructor.

Goal: Develop IUT's ability to conduct NVD navigation and CALs under HLL or LLL conditions as defined by MCO P3500.14 emphasizing instructional technique.

Requirements:

1. Brief and discuss, weather and terrain considerations, aircraft lighting, NVD failures, crew coordination, situational awareness, navigation aids, map ,prep and usage, obstacle clearance and use of visual cues for distance estimation.
2. The IUT will demonstrate a knowledge of confined area landings and navigation assistance emphasizing instructional techniques in the following:
 - a. NVD Prep/Terminology
 - b. Aircraft Lighting
 - c. Lookout Doctrine
 - d. Distance Estimation Cues
 - e. NVD Usage
 - f. Navigation Aids/Map Usage
 - g. Emergencies (NVD/AC)
 - h. Brown out/ White out
 - i. Obstacle Clearance
 - j. Closure Rate
 - k. Standard Terminology
 - l. Crew Chief Responsibilities
 - m. Crew Coordination
 - n. Situational Awareness
 - o. Instructor Technique

Ordinance: N/A

External Support Requirements: N/A

Goal: Conduct tactical formation flight and ordnance delivery to include CALs, and TERF navigation in a tactical Scenario under HLL or LLL conditions as defined by MCO P3500.14.

Requirements:

1. Brief and discuss, weather and terrain considerations, aircraft lighting,NVD failures, crew coordination, situational awareness, Wingman awareness, attack

patterns, navigation aids, map ,prep and usage, obstacle clearance and use of visual cues for distance estimation.

2. Brief and discuss use of weapons, sectors of fire, burst limits, emergency procedures and safety considerations. Brief and discuss use of AIM-1, GCP2A/V2 and AN/PEQ-3 LASER pointers, to include safety consideration, advantages, and target acquisition.

2. The IUT will demonstrate his instructional technique emphasizing:

- a. NVD Prep/Terminology
- b. Weapons Prep/Checklist
- c. Lookout Doctrine
- d. Distance Estimation Cues
- e. NVD Usage
- f. Navigation Aids/Map Usage
- g. Emergencies (NVD/AC)
- h. Weapons Usage/Conditions, Safety
- i. Sectors of Fire/Burst Limits
- j. LASER Usage/Safety
- k. Obstacle Clearance
- l. Closure Rate
- m. Standard Terminology
- n. Crew Chief Responsibilities
- o. Crew Coordination
- p. Situational Awareness
- q. Instructor Technique

Ordinance: 300 .50 Cal(GAU-16)/1500 7.62mm(GAU-17A)/500 M240D

External Support Requirements: N/A

CERTIFICATION STAGE

Certification Academic Syllabus

1. The IUT shall present to a MAWTS-1 crew chief, one of the classes listed in the UH-1N Crew Member NS Academic Course, as determined by the MAWTS-1 crew chief instructor, prior to completing certification.
2. The IUT will successfully complete a written NSI Exam administered by a MAWTS-1 crew chief instructor prior to beginning the certification stage of the flight syllabus. The minimum passing grade for the exam is 80%. In the event of an exam failure, the certification will be terminated, and another attempt will not be allowed for at least month.

3. The following flights will be evaluated by a MAWTS-1 crew chief.
4. The IUT will demonstrate to the MAWTS-1 crew chief instructor the ability to instruct night systems operations.
5. Both certification flights shall be flown under LLL conditions as defined by MCO P3500.14.

NVG 592 E

2 or more UH-1N

NS

Goal: Conduct two or more plane tactical formation flight, CALs, and navigational assistance in a tactical scenario under LLL condition as defined by the MCO P3500.14.

Requirements:

1. Brief and discuss, weather and illusions of terrain flight, aircraft lighting, NVD failures, crew coordination, situational awareness, navigation aids, map prep and usage, obstacle clearance and use of visual cues for distance estimation.
2. The IUT will demonstrate instructional techniques emphasizing:
 - a. NVD Prep/Terminology
 - b. Aircraft Lighting
 - c. Lookout Doctrine
 - d. Distance Estimation Cues
 - e. NVD Usage
 - f. Weapons Usage/Condition, Safety
 - g. Navigation Aids/Map Usage
 - h. Emergencies (NVD/AC
 - i. Brown out/ White out
 - j. Obstacle Clearance
 - k. Closure Rate
 - l. Standard Terminology
 - m. Crew Chief Responsibilities
 - n. Crew Coordination
 - o. Situational Awareness
 - p. Instructor Technique

Ordinance: Optional 300 .50 Cal (GAU-16)/1500 7.62mm (GAU-17)/500 M240D

External Support Requirements: N/A

Goal: Conduct ordnance delivery and navigational assistance in a multi-aircraft (two aircraft minimum) tactical scenario under LLL conditions as defined by the MCO P3500.14.

Requirements:

1. Evaluate the IUT's ability to assist the pilot in all aspects of NVD formation flight, ordnance delivery, and navigation at TERF altitudes emphasizing:
 - a. NVD Prep/Terminology
 - b. Weapons Prep/Checklist
 - c. Lookout Doctrine
 - d. Distance Estimation Cues
 - e. NVD Usage
 - f. Navigation Aids/Map Usage
 - g. Emergencies (NVD/AC)
 - h. Weapons Usage/Conditions, Safety
 - i. Sectors of Fire/Burst Limits
 - j. LASER Usage/Safety
 - k. Obstacle Clearance
 - l. Closure Rate
 - m. Standard Terminology
 - n. Crew Chief Responsibilities
 - o. Crew Coordination
 - p. Situational Awareness
 - q. Instructor Technique

Ordnance: 300 .50 Cal (GAU-16)/1500 7.62mm (GAU-17)/500 M240D

External Support Requirements: N/A

RECERTIFICATION REQUIREMENTS

Refresher:

1. Previously designated UH-1N NSIs returning to the UH-1N that require refresher training in accordance with MCO P3500.14 must complete an NSI recertification course. Upon recertification by a MAWTS-1 crew chief instructor, the NSI designation can be made by the squadron commanding officer.
2. The following comprises the recertification course:
 - a. IUT must meet all prerequisites previously listed.

- b. The IUT must complete the NVG 592 and NVG 593 sortie evaluated by a MAWTS-1 crew chief instructor.

Transition:

1. Crew chiefs designated as an NSI in an aircraft other than the UH-1N that transition to the UH-1N must complete the entire UH-1N Crew Chief NSI Certification Course.

Conversion:

1. Crew chiefs designated as an NSI in an aircraft other than the UH-1N that undergo conversion to the UH-1N must complete the entire UH-1N Crew Chief NSI Certification Course.

EVENT	DATE	INSTRUCTOR
COMBAT READY PHASE		
TACTICAL AIRCREW CONSID. & RESP.		
NIGHT ENVIRONMENT		
INTRODUCTION TO NVGs		
ADJUSTMENT PROCEDURES		
MISPERCEPTIONS AND ILLUSIONS		
DECK LANDING QUALIFICATION (DLQ)		
DLQ 201		
DLQ 202		
CONFINED AREA LANDINGS (CAL)		
CAL 200		
CAL 202		
DECK LANDING QUALIFICATION (DLQ)		
DLQ 211		
DLQ 212		
TERRAIN FLIGHT/NAVIGATION (TNAV)		
TERRAIN FLIGHT FOR ENLISTED AIRCREW (U)		
TNAV 220		
TNAV 221		
TNAV 222		
AIR-TO-GROUND ORDNANCE DELIVERY (AG)		
FUNDAMENTALS OF AERIAL GUNNERY		
XM-218/GAU-16 MACHINE GUN		
AG-231		
GAU-17/A MACHINE GUN		
AG 232		
M240D MACHINE GUN		
AG 233		
LASER SAFETY		
LASER BORE SIGHTING		
AG 234		
AG 235		
AG 236		
ESCORT (ESC)		
BASIC PRINCIPLES OF ECORT OPERATIONS		
TACTICAL RECOVERY OF AIRCRAFT AND PERSONNEL		
ESC 251		
NIGHT SYSTEM (NS)		
NS 271		
FORWARD AIR CONTROL (FAC)		
FAC 281		
TACTICS (TAC)		
TAC 291		
COMBAT QUALIFIED PHASE		
ADVANCED NIGHT SYSTEMS QUALIFICATION (ANSQ)		
NVG NIGHT OPERATIONS (U)		
ANSQ 310		
ANSQ 311		
ANSQ 312		
HELICOPTER INSERTION/EXTRACTION (HIE)		
EAD FAST ROPE OPERATIONS		
EAD RAPPEL OPERATIONS		
HIE 320		
HIE 321		
EVENT	DATE	INSTRUCTOR

DECK LANDING QUALIFICATION (DLQ)		
DLQ 330		
DLQ 331		
DLQ 332		
ESCORT (ESC)		
ESC 341		
DEFENSIVE MANEUVERS (DM)		
INTRODUCTION TO DM FOR ENLISTED AIRCREW		
INTRODUCTION TO UH-1N DM 2		
BASIC PRINCIPLES OF EW		
AN/ALE-39 / AN/AAR-47 SYSTEMS		
AN/APR-39		
RADAR SAM THREAT		
DACT 350		
DACT 351		
IR SAM THREAT		
ATTACK HELO THREAT		
AAA THREAT		
AN/ALQ-144		
AIR TO GROUND (AG)		
AG 370		
AG 371		
TACTICS (TAC)		
ACEOI		
MOUT		
TAC 380		
TAC 382		
ROE		
FULL COMBAT QUALIFICATION PHASE		
HELICOPTER INERTION/EXTRACTION (HIE)		
SPIE RIG OPERATIONS		
HELOCAST OPERATIONS		
HIE 400		
HIE 401		
HIE 402		
AIR TO AIR GUNNERY (AAG)		
AAG 411		
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